DETAILED ACTION

1. Claims 1-357 are presented for examination. Claims 176-198, 228-229, 252-259, 263-271, 278-282, 284-286, 298, 300-301, 330, 334-335, 344-354 are elected.

2. Applicant's election without traverse of Claims 176-198, 228-229, 252-259, 263-271, 278-282, 284-286, 298, 300-301, 330, 334-335, 344-354 in the reply filed on 1/14/2010 is acknowledged.

3. Upon further consideration, examiner noticed that claims 353 and 354 should have been grouped with non-elected spices since claim 353 and 354 corresponds respectively with claims 199 and 204. An telephone interview was conducted and Mr. Jason Rosenblum confirmed on April 6, 2010 that claims 353-354 to also be non-elected claims.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 180 and 348 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for claims 179 and 347 "assigning elementary information units identifiers to elementary information units **after** identification (not that identification is part of the deducing step in claim 176 and 344)", does not reasonably provide enablement for "said elementary information units identifier are utilized in said deducing". The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. It is logically impossible to carry out the claim scope in the current claimed limitation order to utilize elementary information unit identifiers in deducing of claim 180 since claim 179 clears defined that the identifiers are assigned after identification, where identification is part of the deducing process claimed in claim 176. How can the identifiers be utilized in deducing if they are assigned after the deducing step itself?

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 176-183, 185-188, 197-198, 228-229, 252-253, 255-259, 263, 269-271, 278-280, 282, 286, 298, 300-301, 330, 334-335, 344-350 and 352 are rejected under 35 U.S.C. 102(e) as being anticipated by Bisbee et al (Bisbee), US 7,162,635.

9. As per claim 176, Bisbee taught the invention as claimed including a method for information identification comprising:

a. Finding elementary information units within said information object (col.8, lines 48-67); and

b. Deducing information about the identity of said information object from identification of said elementary information units found within said information object (col.8, lines 48-67).

10. As per claim 177, Bisbee taught the invention as claimed in claim 176. Bisbee further taught that wherein said information objects comprises at least one simple information object, said simple information object comprising a set of elementary information unit (col.8, lines 48-67).

11. As per claim 178, Bisbee taught the invention as claimed in claim 176. Bisbee further taught that wherein said elementary information units comprise at least a number, a character, a digit (col.8, lines 48-67).

12. As per claim 179, Bisbee taught the invention as claimed in claim 176. Bisbee further taught to assign elementary information units identifiers to elementary information units after identification (col.7, lines 8-17, 28-32).

13. As per claim 180, Bisbee taught the invention as claimed in claim 179. Bisbee further taught that said elementary information unit identifiers are utilized in said deducing (col.7, lines 8-17, 28-32, col.8, lines 38-43, 48-67, col.17, lines 43-45).

14. As per claims 181-182, Bisbee taught the invention as claimed in claim 176. Bisbee further taught said information object identification is carried out on an instance of said information object (col.7, lines 8-17, 28-32, col.8, lines 38-43, 48-67, col.17, lines 43-45), said information object instance being said information object in a specific format such as XML (col.4, lines 10-19).

15. As per claim 183, Bisbee taught the invention as claimed in claim 179. Bisbee further taught wherein said elementary information unit identifiers are determined by the content of said elementary information units which they are assigned to (col.7, lines 8-17, 28-32, col.8, lines 38-43, 48-67, col.17, lines 43-45).

16. As per claim 185, Bisbee taught the invention as claimed in claim 179. Bisbee further taught wherein said elementary information unit identifiers are at least partly determined by

locations within an information object of respective elementary information units to which they are assigned (col.7, lines 8-17, 28-32, col.8, lines 38-43, 48-67, col.17, lines 43-45).

17. As per claim 186, Bisbee taught the invention as claimed in claim 179. Bisbee further taught wherein said elementary information unit identifiers are at least partly determined by the content of an elementary information unit in proximity to said elementary information units to which they are assigned to (col.7, lines 8-17, 28-32, col.8, lines 38-43, 48-67, col.17, lines 12-14, 43-45).

18. As per claims 187 and 298, Bisbee taught the invention as claimed in claims 176 and 179. Bisbee further taught to store said elementary information unit identifiers in a database and storing information about said information object in database (col.16, lines 32-35, col.17, lines 12-14, 33-45, col.18, lines 5-32).

19. As per claim 188, Bisbee taught the invention as claimed in claim 187. Bisbee further taught to comprise using said elementary information units identifiers stored in said database for identifying at least one further, unidentified, information object (col.7, lines 8-17, 28-32, col.8, lines 38-43, 48-67, col.17, lines 12-14, 33-45, col.18, lines 5-32).

20. As per claim 197, Bisbee taught the invention as claimed in claim 177. Bisbee further taught that said information objects comprises at least one compound information object, said

compound information object comprising at least one of a simple information object, a compound information object (col.3, lines 44-47, col.4, lines 10-30).

21. As per claim 198, Bisbee taught the invention as claimed in claim 176. Bisbee further taught that said information comprises at least one of textual data, hyper text data; database data; image data; drawing data; picture data; word processor data (col.1, lines 25-32, col.4, lines 10-30, col.13, lines 31-55).

22. As per claim 228, Bisbee taught the invention as claimed in claim 176. Bisbee further taught that at least one user is defined in an owner definition as an owner of said information object (col.3, lines 26-29, col.5, lines 11-25).

23. As per claim 229, Bisbee taught the invention as claimed in claim 228. Bisbee further taught that said owner definition is stored in a database (col.3, lines 26-29, col.5, lines 11-29).

24. As per claim 252, Bisbee taught the invention as claimed in claim 179. Bisbee further taught to comprise applying preprocessing to said elementary information units before assigning identifiers thereto (col.6, lines 17-32, 66-67, col.7, lines 1-20).

25. As per claim 253, Bisbee taught the invention as claimed in claim 252. Bisbee further taught that wherein said preprocessing is done in order to enhance at least one of efficiency and robustness (col.6, lines 17-32, 66-67, col.7, lines 1-20).

26. As per claims 255-259, Bisbee taught the invention as claimed in claim 252. Bisbee further taught to carry out said preprocessing so as to ensure that any area of a given size in said information object contains at least a predetermined number of said elementary information units having an assigned elementary information unit identifier wherein said given size id dependent on properties of said information object, wherein said properties of said information object comprises size and format, wherein said predetermined number id dependent on properties of said information object and wherein said properties of information object comprise size and format (col.7, lines 8-17, 28-32, col.8, lines 38-43, 48-67, col.17, lines 43-45).

27. As per claim 263, Bisbee taught the invention as claimed in claim 252. Bisbee further taught to comprise formulating respective assigned elementary information unit identifier to be resilient to small errors (col.20, lines 45-67, col.21, lines 1-16).

28. As per claim 269, Bisbee taught the invention as claimed in claim 176. Bisbee further taught said information object is a knowledge object (col.7, lines 8-17, 28-32, col.8, lines 38-43, 48-67, col.17, lines 43-45).

29. As per claims 270-271, Bisbee taught the invention as claimed in claim 176. Bisbee further taught said elementary information units is an elementary fact comprising sentence, database entry, representation independent description of knowledge, modular description of

knowledge, and abstract description of knowledge (col.7, lines 8-17, 28-32, col.8, lines 38-43, 48-67, col.17, lines 43-45).

30. As per claims 278-280, Bisbee taught the invention as claimed in claim 179. Bisbee further taught said assigning of said elementary information unit identifier is carried out a plurality of times, each time utilizing a different method for assigning of an elementary information unit identifier and the storing the identifiers separately and can be distinguished according to said method utilized to assign them (col.7, lines 8-17, 28-32, col.8, lines 38-43, 48-67, col.17, lines 43-45).

31. As per claims 282 and 286, Bisbee taught the invention as claimed in claim 179. Bisbee further taught said assigning of a respective elementary information unit identifier comprises utilizing a method being insertion resilient (col.7, lines 8-17, 28-32, col.8, lines 38-43, 48-67, col.17, lines 43-45).

32. As per claims 300-301, Bisbee taught the invention as claimed in claim 176. Bisbee further taught to store the order of said elementary information units within said information object in a database and using said order for identification of said information object (col.7, lines 8-17, 28-32, col.8, lines 38-43, 48-67, col.17, lines 43-45).

33. As per claims 344-350, 352, they contain the same scope respectively with claims 176-181, 183 and 185, therefore they are rejected under the same rationales as applied to claims 176-181, 183 and 185 above.

Claim Rejections - 35 USC § 103

34. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

35. Claims 184, 189-196, 284 and 351 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisbee et al (Bisbee), US 7,162,635.

36. As per claim 184, Bisbee taught the invention as claimed in claim 179. Bisbee further taught wherein said elementary information unit identifiers are determined by said content (col.7, lines 8-17, 28-32, col.8, lines 38-43, 48-67, col.17, lines 43-45). Bisbee did not specifically teach that the identifiers are solely determined by content. However, it would have been obvious to implement the identifiers to be more specific in various ways. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bisbee and implement the assignment of identifier to specifically identify content of the elementary information unit to gain the benefit of precise referencing.

37. As per claim 189, Bisbee taught the invention as claimed in claim 187. Bisbee further disclose the concept of comparing data (col.34, lines 1-5). Bisbee did not specifically teach to comprise using said elementary information units identifiers stored in said database for comparing information objects. However, the concept and advantage of data comparing, matching and analyzing in database is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the users of Bisbee's method to use identifiers to retrieve data contents from the database for analyzing and matching similar contents.

38. As per claims 190-196, Bisbee taught the invention as claimed in claim 190. Bisbee did not specifically teach in detail to store of only some of said elementary information unit identifiers in order to achieve reduce storage cost; increase efficiency of assigning of said elementary information units identifiers and increase the efficiency of searching for said elementary information units identifiers in said database. However, the concept and advantage of selectively storing and prioritized storing to reduce cost, simply management, reserve storage space is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Bisbee and implements selective storing of the identifier to effectively store only the important and required identifiers to reduce storage cost and reduce storage space needed and simply database management.

39. As per claim 284, Bisbee taught the invention as claimed in claim 278. Bisbee did not teach that said utilizing said different methods sequentially until a predetermined stop condition

is reached. However, it would have been obvious to go through a list of instructions one by one until the last instruction is processed. The concept is similar to queue a plurality of requests/commands for processing in a processing queue and process the commands one by one. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bisbee and further implement the method to automatically process a serious of instructions until the end of the instruction is reached.

40. As per claim 351, it contain the same scope respectively with claim 184, therefore they are rejected under the same rationales as applied to claim 184 above.

41. Claim 254 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bisbee et al (Bisbee), US 7,162,635, in view of Flynn et al (Flynn), US 5,347,653.

42. As per claim 254, Bisbee taught the invention as claimed in claim 252. Bisbee did not specifically teach that said preprocessing comprises at least one of canonization; removal of common words; removal of words not having a substantial effect on the meaning of the text; removal of punctuation; correction of spelling; canonization of spelling; scene detection; canonizing size; canonizing orientation; canonizing color; removing color; reducing noise; enhancing area separation; enhancing borders; enhancing lines; sharpening; burring; removal of elementary information units substantially similar to neighboring elementary information units; canonization of grammar; and transformation to a phonetic representation. However, processes such as correcting spelling and removing text, color are well known in the art. Flynn taught to

correct spellings or remove text for information objects (col.5, lines 4-9, col.9, lines 36-39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bisbee and Flynn because Flynn's teaching enables Bisbee's method to make modifications to the information object.

43. Claim 264-268 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisbee et al (Bisbee), US 7,162,635, in view of Mannila et al (Mannila), US 6,920,453.

44. As per claims 264-268, said assigning of elementary information unit identifier utilizes image matching or comprises a mapping to a Euclidian space. Mannila taught to map data to a Euclidian space by approximating the similarity between the data by comparing, looking for patterns and regularities in data (col.2, lines 25-47, col.5, lines 1-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Bisbee and Mannila because Mannila's teaching of determining the similarities between data and mapping to Euclidian space provides Bisbee's method with an efficient, fast and simply process of analyzing large amounts of data (see Mannila, col.2, lines 8-18, 25-35). Bisbee and Mannila did not specifically teach that the similarity/difference is one of semantic difference, distance measured by image matching, phonetic difference, and spelling difference. However, since Mannila suggested comparing data patterns and regularities, it would have been obvious to apply such teaching to determine differences in various areas of the content in order to obtain more specific analysis results.

45. Claim 285 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bisbee et al (Bisbee), US 7,162,635, in view of Ryan et al (Ryan), US 2002/0010743.

46. As per claim 285, Bisbee taught the invention as claimed in claim 179. Bisbee did not specifically teach that said information object comprises spreadsheet data, and wherein said assigning of said elementary information unit identifier assigned to said information object comprises utilizing a method comprising at least one of the following characteristics: invariance to linear transformation; invariance to reordering; invariance to permutation; resilience to linear transformation; resilience to reordering; resilience to permutation; resilience to minor changes; resilience to cuts; utilizing of statistic moment; utilizing of statistic moment for a table; utilizing statistic moment for a row; utilizing statistic moment for a column; and utilizing a mathematical descriptor of the information object data. Ryan taught information object to include spreadsheets and assign identifier to the spreadsheets for resilience to reordering, cuts and minor changes and utilizing a mathematical descriptor of the information object data (abstract, pp. 0014, 0054-0055, 0116, 0142). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bisbee and Ryan because Ryan's teaching of spreadsheet information management methods enables Bisbee's method to better manage and storing the information unit identifiers (see Ryan, abstract).

47. Claims 281, 330, 334-335 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisbee et al (Bisbee), US 7,162,635, in view of Crill et al (Crill), US 6,445,822.

48. As per claim 281, Bisbee taught the invention as claimed in claim 278. Bisbee did not specifically teach that the different methods are selected such as to optimize between at least any two of the following: storage space; search speed; capability to detect transformation; capability to detect a specific transformation; resilience to transformation; resolution of identification from among similar information objects; resolution of identification of boundaries within compound information objects; resilience to a specific transformation; and resilience to transformation. Crill taught to assign identifiers to optimize resolution of identification from among similar information objects and detect transformation (abstract, col.2, lines 37-51, col.7, lines 3-13, 22-30, col.10, lines 55-67, col.11, lines 1-4, col.12, lines 54-67, col.13, lines 1-4, col.14, lines 19-43, col.22, lines 48-52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bisbee and Crill because Crill's method of comparing similarity of various formatted digital contents allows Bisbee's method to locate and identify files of similar contents, file format type by using optical correlation (see Crill, col.2, lines 21-34).

49. As per claims 330, Bisbee taught the invention as claimed in claim 179. Bisbee did not teach in detail to use said deducing to locate at least one information with similar content to a given information object. Crill taught to compare and locate similar contents (abstract, col.2, lines 37-51, col.7, lines 3-13, 22-30, col.10, lines 55-67, col.11, lines 1-4, col.12, lines 54-67, col.13, lines 1-4, col.14, lines 33-43, col.22, lines 48-52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Bisbee and Crill because Crill's method of using optical correlation to compare similarity of various

formatted digital contents allows Bisbee's method to search and locate and identify files of similar contents, including files distributed at different databases (see Crill, col.2, lines 21-34).

50. As per claim 334, Bisbee and Crill taught the invention as claimed in claim 330. Crill further taught that the locating is done in an information storage medium (abstract, col.2, lines 21-34, 37-51, col.7, lines 3-13, 22-30, col.10, lines 55-67, col.11, lines 1-4, col.12, lines 54-67, col.13, lines 1-4, col.14, lines 33-43, col.22, lines 48-52).

51. As per claim 335, Bisbee and Crill taught the invention as claimed in claim 334. Crill further taught said information storage medium comprises at least one file system (abstract, col.2, lines 21-34, 37-51, col.7, lines 3-13, 22-30, col.10, lines 55-67, col.11, lines 1-4, col.12, lines 54-67, col.13, lines 1-4, col.14, lines 33-43, col.22, lines 48-52).

Conclusion

52. A shortened statutory period for reply to this Office action is set to expire **Three MONTHS** from the mailing date of this action.

53. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenny Lin whose telephone number is (571) 272-3968.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on (571) 272-6967. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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/Kenny S Lin/
Primary Examiner, Art Unit 2452
April 7, 2010